S. HRG. 103–340

REAUTHORIZATION OF THE NATIONAL TRANSPORTATION SAFETY BOARD AND S. 1588

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Reauthorization of the National Tra...

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

OCTOBER 29, 1993

Printed for the use of the Committee on Commerce, Science, and Transportation

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REAUTHORIZATION OF THE NATIONAL TRANSPORTATION SAFETY BOARD AND S. 1588

FRIDAY, OCTOBER 29, 1993

U.S. SENATE,
SUBCOMMITTEE ON AVIATION OF THE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:40 a.m. in room SR–253, Russell Senate Office Building, Hon. Wendell H. Ford (check to see if chairman of the subcommittee) presiding.

Staff members assigned to this hearing: Carol J. Carmody, professional staff member, and Samuel E. Whitehorn, senior staff counsel; and Alan Maness, minority staff counsel.

OPENING STATEMENT OF SENATOR FORD

Senator FORD. Good morning, Ladies and Gentlemen. This morning, the subcommittee will hear from the Honorable Carl W. Vogt, Chairman of the National Transportation Safety Board.

By the way, I am delighted that Jim Hall was confirmed. I understand that he is at work, Mr. Chairman.

Mr. VOGT. Yes, sir. He attended his first board meeting yesterday.

Senator FORD. Well, good. You will be our only witness this morning; and it is nice that things are going so well that there is no need for major amendments to the Independent Safety Board Act of 1974. Mr. Chairman, your comments, please.

OPENING STATEMENT OF SENATOR HOLLINGS

The CHAIRMAN. Today the committee is holding a hearing on S. 1588, a bill, introduced by Senator Ford, to reauthorize for 3 years the National Transportation Safety Board. This reauthorization is an important one because the NTSB functions as our Nation's primary safety investigative agency, mobilizing teams of investigators wherever and whenever there is a major transportation accident in the United States. NTSB experts thoroughly examine every conceivable aspect of an accident scene to discover the causes of these tragedies. Accident investigation is critical to the safety of our transportation system, and the work of the NTSB helps to ensure that safety hazards which may have caused one tragedy will not cause another.

In this year of deficit reduction and fiscal restraint, each Federal agency is feeling the squeeze of a tighter budgetary belt. The NTSB

is no exception. In the early 1980's, staff levels were as high as 401 employees; today, there are fewer than 360 full-time equivalent employees. The NTSB's budget follows the President's order for a slimmer Federal workforce, with a significant reduction in staff size scheduled for fiscal year 1994. Nevertheless, it is important to assure that sufficient resources are authorized to allow the NTSB to perform its important mission.

Our transportation system is the safest in the world, thanks in part to the tireless efforts of the NTSB. This agency is not one which can absorb large reductions and maintain its excellence. S. 1588 ensures that the NTSB will continue its efforts to improve transportation safety for all of us.

I welcome Chairman Vogt and look forward to his testimony.

Senator FORD. Thank you, Mr. Chairman. Do you have a statement, Senator Pressler?

OPENING STATEMENT OF SENATOR PRESSLER

Senator PRESSLER. Mr. Chairman, I look forward to hearing from Chairman Vogt. I have been very interested in the National Transportation Safety Board, and its relationship with the FAA. We are all very interested in the safety of our Nation's transportation system.

I know that the NTSB has faced a considerable workload over this past year. I look forward to learning more about the NTSB's efforts and shall have some questions. I thank you very much.

Senator FORD. Mr. Chairman, you may proceed. You can highlight, file it for the record, or give it all to us; whatever you want to do.

STATEMENT OF CARL W. VOGT, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD

Mr. VOGT. Well, let me do a little of both, Mr. Chairman. We would like to file my statement for the record.

Senator FORD. It will be included in the record, as if given.

Mr. VOGT. I do have a brief statement.

Needless to say, I am pleased to be here, and we appreciate this opportunity. This committee has, and I particularly want to make this point—the relationship between the NTSB and this committee over the years has been one of great consequence, I think.

It has certainly been your support that has enabled this Board to do the wonderful job I believe it has done over its whole existence; and everyone there feels the support that this committee has given, and we are very appreciative of it.

Before I discuss our 3-year reauthorization, I would like to highlight some of the things that we have done.

Last year, as you know, marked the Safety Board's 25th anniversary; and we believe there is no doubt that, since its inception, the Board has contributed in a very significant way to enhancing transportation safety.

As a result of more than 50,000 Safety Board accident investigations, and many studies, more than 9,000 safety recommendations, covering a wide range of issues, have been issued by the Board. These recommendations are our most important product; they are

our product. And they are the lever that we use, to bring about changes and improvements in transportation safety.

Historically, I think this lever has been quite effective. In fact, in excess of 80 percent, as you well know, of our recommendations over the years have been implemented; and this, I think, demonstrates the acceptance among our constituency of the kind of work we are doing.

Last year was only the fourth time in the history of the Board that we were unable to conclusively determine the probable cause of a large carrier accident. This was most unfortunate, but it illustrates the increasing complexity of the kinds of things that we are getting into, particularly in aviation.

We had many other investigations that we concluded last year, and I brought along copies of our annual report—which I believe is one of the best ones a board has ever done—to leave with you; and I think it will relate much better than I, perhaps, what we did accomplish last year.

In 1993, we have already made some substantial headway. We completed our report on the Pegasus incident, which occurred last February; and we also completed our report on the natural gas explosion in an underground cavern near Brenham, TX. Both of these were significant, in that they involved new areas for the Board to investigate, and have expanded our expertise considerably.

We also will complete several more investigations and reports before the end of this year, including the tragic accident involving the Governor of South Dakota and several other South Dakotans.

Last year, we participated in over 60 foreign investigations, in more than 50 different nations. We did not go to the accident scene in all of those, but we had a significant role in the foreign investigations.

We have sent our investigators, so far this year, for example, to China, Guatemala, and many other countries, and have been involved in a large number of other foreign investigations through our labs.

In surface transportation, as you know, we are investigating last month's Amtrak derailment of the Sunset Limited near Mobile, AL; and I know that you will probably have some questions about that. We had more than a dozen investigators there, from our railroad and marine divisions; and we are going to convene a public hearing early next month.

We are requesting authorization levels of $37.125 million, and 348 FTE's, for the fiscal year 1994; $44 million, and 384 FTE's, for fiscal year 1995; and $45.1 million, and 384 FTE's, for fiscal year 1996. Our 1994 request represents an overall dollar increase for uncontrollable expenses, but includes a decrease of 9 FTE's from our 1993 appropriation level.

This represents the first phase of the 4 percent across-the-board personnel reduction, proposed by the President. If approved by Congress, we will lose technical and investigative positions, as well as some in our administrative function.

Our staffing level requested for fiscal years 1995 and 1996 includes 3 additional FTE positions above our authorized 381 level, to take into account our increased review authority for civil penalties.

Mr. Chairman, that concludes my remarks. Now, I would be pleased to take your questions.

[The prepared statement of Mr. Vogt follows:]

PREPARED STATEMENT OF CARL W. VOGT

Mr. Chairman and Members of the Committee. I am pleased to appear before you on behalf of the National Transportation Safety Board. Over the years, this Committee's support of the Safety Board has had a major and beneficial impact on the Board's effectiveness. The Board Members, as well as the staff, are grateful for your active interest in and support of our work, and we look forward to continuing this cooperative relationship.

Before discussing the three-year reauthorization we present today, I would like to highlight some of the Board's activities.

SUMMARY

Last year marked the Safety Board's 25th anniversary, and we believe there is no doubt that since its inception, the Board has contributed in a significant way to enhancing transportation safety not only in the United States, but also throughout the world.

As you know, the Board's mission is to investigate transportation accidents, determine their probable cause, and make recommendations designed to prevent such accidents from recurring. We also conduct safety studies and special investigations as warranted to enhance public safety.

As a result of more than 50,000 Safety Board accident investigations in the past quarter-century and many safety studies, we have issued more than 9,000 safety recommendations covering a wide range of transportation safety issues. These safety recommendations are our most important product, since they are the lever used to bring about changes and improvements in transportation safety.

History has demonstrated that this lever is effective. The fact that in excess of 80 percent of the Safety Board's recommendations issued over the years have been implemented, clearly demonstrates the effectiveness of our efforts.

TRANSPORTATION FATALITIES

The safety of America's transportation system improved in 1992 with fewer deaths reported than in previous years. Although only preliminary data are available, it would appear that fewer than 42,000 people died on our transportation systems in 1992. Transportation-related fatalities in 1991 totalled 44,067, compared with 47,014 in 1990.

AVIATION

In aviation, our preliminary statistics show the number of fatalities rose in 1992, with 1,013 fatalities compared to 978 deaths the year before. The number of fatalities aboard commuter airplanes dropped to 21 in 1992—from 77 a year earlier. Large scheduled commercial carriers registered four fatal accidents and 33 fatalities in 1992, compared to the same number of fatal accidents and 50 deaths the year before. The 33 fatalities represent the lowest number of deaths since 1986, when five persons died in that category. In general aviation, there were 444 fatal accidents and 874 fatalities in 1992, compared to 422 fatal accidents and 765 deaths in 1991.

Our major accident investigations included the crash of a USAir Fokker F-28-400 at LaGuardia Airport in which twenty-seven of the fifty-one people on board died. Calendar year 1992 also marked only the fourth time in our history that we were unable to conclusively determine the probable cause of a large air carrier accident. Despite an exhaustive and rigorous 20-month-long investigation, the Safety Board could not identify conclusive evidence to explain the crash of a United Airlines B-737 aircraft near Colorado Springs, Colorado.

In addition to our primary role in the investigation of domestic aviation accidents, our work increasingly involves participation in investigations of aviation accidents and incidents that occur in other countries. To a great extent this is due to the burgeoning of aviation operations overseas.

In fact, statistics compiled by the International Civil Aviation Organization (ICA0) reveal that international airline traffic doubled in the past decade, and projections are that traffic will double again by the year 2001. If the current accident rate remains the same, or even decreases slightly, the actual number of accidents we investigate will increase. Because of the Safety Board's status as the sole U.S. accredited

representative in foreign accident investigations, U.S. manufacturers and operators rely heavily upon the Board to facilitate their involvement in the investigation of foreign incidents and accidents.

Last year alone, Safety Board investigators participated in 60 investigations in more than 50 different nations. So far this year, our aviation investigators have been to accident scenes in China and Guatemala.

RAILROAD

The Safety Board performs in-depth analyses of selected rail accidents and grade crossing accidents. Our efforts are concentrated on accidents in which resolution of significant railroad safety issues will not only improve safety for passengers, crews, and communities that interact with the railroad system, but also guard the environment.

In addition to railroad accident investigations, the Safety Board also conducts special studies and investigations on railroad safety issues. Some of the issues investigated include tank car and locomotive fuel tank integrity, and collision avoidance. A safety study also is currently being developed which will examine the role of fatigue and the effects of work1rest cycle scheduling practices on railroad accident causation.

As you are all well aware, the Safety Board is investigating the tragic derailment of Amtrak train #2 in Mobile, Alabama in September. We have announced a public hearing to convene in Mobile on December 13 as we gather the facts surrounding the deadliest railroad accident in Safety Board history.

HIGHWAY

The Safety Board also investigates highway accidents, including railroad grade crossing accidents. Studies of safety factors relating to heavy commercial truck brakes and highway construction work zone hazards were adopted by the Board last year. Moreover, as a result of investigations of six limited-visibility, chain-reaction collisions on our highways, the Safety Board urged the initiation of a joint federal-state-industry effort to help ensure that guidance for limited-visibility driving is more uniform and complete throughout the nation.

In another area, the Safety Board has called on all states to tighten and vigorously enforce their young driver licensing and underage drinking and driving laws. Young drivers (ages 20 and under) are over-represented in traffic accidents and deaths.

According to figures from the National Highway Traffic Safety Administration (NHTSA), this group comprises 7.1 percent of the licensed drivers, but accounts for 14.9 percent of all driver fatalities. On the basis of automobile crashes per 100,000 licensed drivers, young drivers are in the highest risk group.

MARINE

Passenger vessel safety continues to be a key transportation issue for the Safety Board, particularly with the sustained growth of the cruise vessel industry. Crew training, communications, emergency drills, human factors and fatigue are areas of concern for passenger as well as other vessels. Licensing and inspection requirements for fishing vessels and oversight of Coast Guard efforts in this area also remain Safety Board interests. One of the issues we will be exploring at our hearing in Mobile, Alabama is licensing and training requirements of towboat operators.

Safety Board recently adopted the accident investigation report on the August 1992, grounding of the Queen Elizabeth 2 off the Massachusetts coast. Failures by the pilot and master of the ship to exchange critical information were cited as the probable cause of the ship's grounding. The Safety Board also completed a safety study on recreational boating safety that addressed a number of measures intended to reduce the number and severity of recreational boating accidents, including alcohol countermeasures, use of personal flotation devices (PFDs) for children, and boat operator training.

PIPELINE

In 1992, the Safety Board conducted three significant fatal pipeline accidents. The Safety Board also is leading the investigation into the cause of the April 1993 pipeline rupture in Reston, Virginia, which resulted in the release of about 400,000 gallons of diesel oil into a tributary that flows into the Potomac River immediately upstream of a water intake facility.

REAUTHORIZATION REQUEST

The Safety Board is requesting authorization levels of $37. 125 million and 348 Full Time Equivalents (FTEs) for fiscal year 1994, $44 million and 384 FTEs for fiscal year 1995, and $45.1 million and 384 FTEs for fiscal year 1996.

The requested authorization for fiscal year 1994 is consistent with the Safety Board's 1994 Congressional appropriations request. The fiscal year 1994 request represents an overall increase for uncontrollable expenses ($1.125 million) over our current appropriations and reflects a decrease of nine FTEs from our fiscal year 1993 appropriations and 33 FTEs below our current authorization. This level represents the first phase of the four percent across-the-board personnel reduction proposed by the President. If approved by Congress, the reductions will be applied across all Safety Board divisions. Technical and investigative positions, as well as administrative positions, will be affected.

The staffing level requested for fiscal years 1995 and 1996 includes three FTE positions more than our current authorized staffing level of 381. These positions are required to perform the adjudicatory functions in civil penalty cases involving pilots and flight engineers. This program responsibility was transferred to the Board from the Federal Aviation Administration in September 1992.

In addition to an increase in staff for fiscal years 1995 and 1996, the requested reauthorization contains funds for increased costs related to inflation, civilian benefits, pay raises, promotions and within-grade increases.

The request for fiscal year 1995 also includes increases for the permanent change of station program, training, laboratory and investigative equipment. These items are essential to the Safety Board's ability to retain and attract the highest caliber employees.

The request does not include funding for locality pay increases that may be implemented during the period covered by this reauthorization proposal, nor does it propose changes to our existing statutory authority.

CONCLUSION

As this subcommittee knows from our 1990 reauthorization, the Safety Board has had a long-term goal of reaching its optimum personnel level of 381 FTEs. The Safety Board believes three FTEs must be added to this optimum level in order to carry out our responsibilities under the civil penalty appeals program. Other than these new three positions, the 1995 and 1996 requests are consistent with our current authorized levels.

The Safety Board is aware of the budget constraints facing the Congress and recognizes that some funding reductions must be made.

Rest assured, however, that the Safety Board will continue to operate on a 24 hours a day, 7 days a week, 12 months a year basis in order to investigate transportation accidents or incidents.

The Committee can also rest assured that no matter what happens, the Safety Board will, as it always has, accomplish its safety mission.

I thank the Committee and am pleased to answer any questions.

Senator FORD. Thank you very much, Mr. Chairman.

I might add that we hear a lot about your investigations, as it relates to aviation; but you have many other responsibilities: Highway, rail, pipeline, marine accidents, and determining the cause and making safety recommendations based on your findings. And so, I understand that airline incidents may create larger headlines than some others, but you do have these other responsibilities.

And I might say too, Mr. Chairman, and for the record, that we are a little bit different in Senate bill 588, and the House bill H.R. 2440, as it relates to the administration's request. The budget that they requested is $37.125 million; and we have left in there $37.58 million.

We did that, on the basis that your staff is so small that any kind of reduction in that would be minimal overall, but it would be very devastating, I think, to the agency.

And so, we are trying our best to see that you do not get cut too drastically, at least in the legislation. We will see how well it fares, through the Congress.

Mr. VOGT. Well, we greatly appreciate that. Quite honestly, looking at an FTE level of 348 gives us some very substantial concerns about our ability to continue our current level of investigations and, in particular, the quality of our reports. Timeliness, I have come to conclude, is almost as important as anything else in these investigations.

Senator FORD. I understand that very well. I have only, maybe, three or four questions; and they would be in each field: Aviation, rail, and motor carrier.

On October 26, an FAA inspection aircraft crashed near Front Royal, VA, killing all three of the FAA employees aboard. Any crash is disturbing, especially one involving the premier aviation regulatory body.

I understand the National Transportation Safety Board sent a team to investigate. Are you able to share any of the details with us this morning?

Mr. VOGT. Well, Mr. Chairman, we are still early on in the investigation, as I am sure you can expect. We are investigating this accident under a memorandum of understanding with the FAA, since it was a public-use aircraft.

This was a particularly tragic accident, as you point out, because it did involve the FAA. But it also involved some issues that have been of concern to us in the past, in corporate-type aircraft. This was a Beechcraft 300, a twin-engine turboprop aircraft with a crew of three on board, two pilots and a technician.

The aircraft, which was stationed in Atlantic City at the FAA facility there, was out to do an electronics check on the localizer at the Winchester airport. After it completed that work, it then planned to depart the area and fly to Newport News, VA.

But it was flying under visual flight rules at that time, and it requested an IFR clearance because there were broken clouds, the bases of which were between 1,500 and 2,500 feet around the area. The Terminal Radar Control Center in Leesburg, the controller with whom they were speaking, had a heavy load and told them that there would be about a 5-minute delay before he could get their IFR clearance.

Now, they are flying around here VFR, presumably under the clouds, awaiting this instrument flight clearance. And while they were doing that, they requested permission from the controller for a clearance to penetrate the clouds until they got on top; so that they could continue VFR on top until they got their IFR flight clearance.

They were denied this request, because there was an aircraft that was descending over Linden at that time. The controller asked the descending aircraft to hold at 6,000 feet, and started trying to coordinate these two airplanes. And when he tried to contact the FAA airplane, there was no response.

It turns out the aircraft had collided with a mountain at about 1,800 feet about 4 miles east of Linden—and not really a mountain, but a hill—it would be a mountain in Texas, where I am from, but a hill around here. And apparently, they lost contact with the ground, and went into the clouds, and collided with the mountain.

As I mentioned earlier, one of the very unfortunate parts of this is that, in 1991, we had two corporate jets that crashed under simi-

lar conditions; where they had taken off under visual flight rules, were airborne, and were awaiting instrument flight clearance. And we have made some recommendations to the effect that we think these clearances should be obtained on the ground, before departure.

So, this was, like all of these accidents, tragic; but particularly so, since it involved an FAA airplane and crew.

Senator FORD. I found, in talking to my aviation friends—private pilots—that they file IFR even on a clear day, in order to be transferred automatically from center to center, rather than being released by one and then picked up by another.

What is the percentage of people that do that, Mr. Chairman? Do you have any idea?

Mr. VOGT. I just do not know that, off the top of my head.

Senator FORD. Those that would take IFR, even on a very clear day?

Mr. VOGT. Well, that would take IFR on a clear day, I think that is a great idea. Because the more IFR, the more control there is. And a large, high percentage, I would expect, do that.

But it is situations—and this might not be one of them—where people are in a hurry. They want to get off the ground, they see some clear air, they want to fly around. They figure they can save 10 or 15 minutes, by getting in the air before they get their clearance. And they get into trouble.

Here, I can only say that this crew lost sight. They were under VFR and lost sight of where they were. That is the only explanation for what happened.

There was evidence, some visual observation, that they were flying very low, and that they had hit some trees before they impacted the mountain. So, it is a very difficult one to prejudge, at this point.

Senator FORD. Has the Board determined that smoke in the cockpit has caused any accidents? Could you comment on the adequacy of the existing FAA regulations on smoke in the cockpit?

Mr. VOGT. Well, Mr. Chairman, as you know, we have had some extensive correspondence over this issue. I have recently sent a letter to Chairman Mineta that deals with this issue.

In looking at our records over the last 15 years, we have not found any accidents where the inability of the pilots to see, due to smoke, was a causing factor.

The one accident that most clearly demonstrates the potential problem, occurred in 1973, and involved an aircraft that had dense smoke in the cockpit. But there were a number of contributing factors to that, including the fact that the air crew did not land at some airfields that were available to it. Their smoke goggles were ineffective.

And they also had, for some reason, disconnected the yaw damper, so that when they tried to approach for a landing, they had a great deal of difficulty controlling the aircraft.

Since then, there have been a number of changes by the FAA, involving requirements and advice on the excavation of smoke from cockpits.

And I must say, we have not been able to conclude that impairment of visibility due to smoke in the cockpit has been a factor over the last 15 years, in accidents that we have investigated.

Senator FORD. Let us talk about rail a little bit. You alluded to the tragic Amtrak derailment in Mobile, AL, in September as focusing further attention on passenger rail safety. Recently, the General Accounting Office concluded that the Federal Railroad Administration should adopt standards governing the condition of safety-critical, passenger railcar components.

What is your view of the need for greater Federal oversight of passenger rail safety? And how do you believe that the National Transportation Safety Board can assist, in developing appropriate safety policies for a new era of high-speed trains?

Mr. VOGT. Well, Mr. Chairman, the questions of oversight will be addressed as part of our factfinding, analysis, and report.

It would be premature for me to draw any conclusions from this particular accident, at this point. But I think those issues are extremely relevant in this case.

For example, we had some very compelling survivability questions which arose because a number of the cars were submerged or partially submerged. We also had issues here about the sustainability of the structure of some of these cars, and also of the continuously welded rail tracks.

So, a number of these issues are going to raise questions about oversight, and about the condition of modern rail systems.

As far as the high-speed rail component is concerned, right now these trains, as you know—on the Northeast Corridor—travel up to 125 miles an hour. With the new trains, it is anticipated that they may get up to 150 miles an hour on the Northeast Corridor.

But, as you may recall, I was on the Amtrak Board before I took this job; and we were investigating at that time the whole question of high-speed rail. Other than the Northeast Corridor there is not, to my knowledge, any rail in the country that will sustain what you would call high-speed rail operations, up to 125 to 150 miles an hour.

So, I think that until we see some further development of additional corridors for high-speed rail, and there are a number of them that lend themselves to that, that particular issue is not going to be in the forefront.

Amtrak, I understand, is proposing to buy some new equipment for the Northeast Corridor, which will be based on the Swedish train that has been over here for some experimentation. And certainly, I think the question of operating at even higher speeds on that corridor is very relevant to what the FRA is going to do, in terms of reviewing the design and construction of these cars. And we will be very interested in that.

Senator FORD. As I understand it, instead of having cross ties on the railbed, they are concrete; and their rail is tied into concrete. Is that the way they make these?

Mr. VOGT. On this Northeast Corridor now, I think they are almost all concrete. They may still have some old wooden ties, but I believe almost all of that roadbed is concrete.

Senator FORD. Let us talk about motor carrier just a little bit, Mr. Chairman.

The Commerce Committee recently held a hearing on the Intelligent Vehicle Highway Systems Program. That is one where you get in, in the morning, and just turn the switch on, and it takes you to work, I guess. But we would get a lot more sleep that way, I guess. But, basically the hearing was with respect to commercial vehicles.

What role can the National Transportation Safety Board play, in expediting the development and deployment of the new IVHS safety systems and technologies, such as automated roadside inspection, collision warning and avoidance systems, and electronic performance monitoring, and so forth?

Mr. VOGT. Well, Mr. Chairman, we think the components as we know them today, and you have just mentioned several of what would be an intelligent vehicle highway system, are things that we are very concerned about. Some of them have been part of our prior recommendations; in particular, as they relate to fogbound accidents. We have found, in several of these fogbound accidents, that the ability to control the speed, to induce a uniform speed of all of the traffic through these fogbound areas, is the key to avoiding accidents in them.

And there are a number of ways of trying to do that. The Europeans, particularly in Holland, do it through some electronic devices which automatically advise car occupants that they should proceed at a certain speed.

All of these things that will either advise occupants to act in a uniform way or in a certain way, or automatically do it, have the potential for obviating the most important factor in superhighway safety; and that is, to maintain the separation of the cars as they proceed. There may be some potential through GPS, through global positioning satellites.

I am not sure what our role is going to be, other than to make recommendations, as they affect potential components of this system, which we have done and will continue to do. We are very, very interested in the developments along this line, because they have great potential for highway safety.

Senator FORD. I have no further questions, Mr. Chairman. Senator Pressler.

Senator PRESSLER. Thank you, Mr. Chairman.

Chairman Vogt, as you know, I have raised concerns with you over the numerous postponements of the Safety Board's meeting to determine the cause of the April 19 plane crash that you mentioned. To date, this important meeting has been rescheduled three times.

Let me be clear: I do not want the NTSB to expedite their investigation. I want a very thorough, investigatory review. My concerns, however, are that a number of the victims' families plan to attend this important NTSB meeting. Obviously, they must make travel arrangements.

Let me point out, it is not easy or inexpensive to travel from South Dakota to Washington. Therefore, in my view, it would make more sense for the NTSB not to schedule a meeting until the report has been completed.

Do you have any comments on that?

Mr. VOGT. Well, we have a firm date on that, Senator; and I can assure you, if you would like to advise your constituents, that we are going to have the hearing on that date.

We have had some rescheduling, but I must tell you that it is not unusual for us to reschedule hearings. We circulated a couple of tentative agendas; but since it is in the month of November, we concluded not to have two hearings that month because of Thanksgiving, and that caused it to be changed one time.

I would caution that conclusions not be drawn from this particular incident; that it is peculiar to this hearing. But we are on track now, and we will have the hearing on the scheduled date. I forget exactly what it is right now, but it is next month.

Senator PRESSLER. There are a group of families out there who feel that this is their third notice of a hearing date.

Mr. VOGT. I can certainly understand that; and I apologize if we have caused them any undo concern. But again, please do not read anything into this particular changing of the schedule.

Senator PRESSLER. Chairman Vogt, at this time I want to focus on the NTSB's investigation concerning the April 19 plane crash, as well as the September 1991 crash in Utica, NY, that involved a similar plane.

Let me begin by summarizing the NTSB's activities, as discussed during our subcommittee's May 27 hearing.

In September 1991, in Utica, NY, there was an incident or accident involving a Hartzell-made propeller hub. In August 1992, the NTSB issued a class 2 recommendation to the FAA, to inspect propellers on planes similar to those involved in the Utica accident.

In October 1992, the FAA sent a written response to the NTSB regarding the class 2 recommendation. In January 1993, the NTSB again corresponded with the FAA, recommending FAA action to prevent "a catastrophic accident." That is a quote.

Chairman Vogt, is that a fair, although brief, summary of the Safety Board's activities?

Mr. VOGT. I believe it is, Senator; but I think our record of our hearing on this and our correspondence will certainly speak for itself, as to exactly what we said when we said it. I do not have those dates at my fingertips right now.

Senator PRESSLER. Mr. Chairman, you were not at the NTSB just prior to issuance of the NTSB's August 1992 class 2 recommendation. However, I am interested to learn why it took the NTSB almost 1 year before any recommendation was issued.

I have a copy of an NTSB memo which I will insert for the record, and I am sure after the report is out, this committee would be interested in any additional memorandums that we can obtain, so we can study this issue in its entirety, from a point of view of public administration.

Let me be clear though, I do not want to rush the NTSB report. But, on October 25, 1991, this memorandum was sent to the Director of Office of Safety Recommendations, through the Director of the Office of Aviation Safety, from the Director of the Northeast Region: "Subject: Safety Recommendation Proposals, by Charles F. Leonard." And, "The enclosed safety recommendation proposals request the Federal Aviation Administration to issue the following: 1) An Emergency," capitalized, "airworthiness directive, AD, for a vis-

ual inspection of specific Hartzell propeller hub arms, due to a recent failure of a hub arm as a result of fatigue issued by corrosion."

I understand that it was nearly a year later before any action was taken by the NTSB; and then, only a class 2 directive was issued and not a class 1 directive.

The two questions are: To the best of your knowledge, why was there a delay of a year? And, why was it downgraded to a class 2 directive?

[The information referred to follows:]

NATIONAL TRANSPORTATION SAFETY BOARD MEMORANDUM

OCTOBER 25, 1991.

The enclosed Safety Recommendation Proposals requests the Federal Aviation Administration to issue the following:

1. An EMERGENCY Airworthiness Directive (AD) for a visual inspection of specific Hartzell propeller hub arms, due to a recent failure of a hub arm as a result of fatigue caused by corrosion.

2. Upgrading of two service bulletins to AD's pertaining to single and double shoulder aluminum propeller blades manufactured by Hartzell Propeller Inc. These blades continue to separate as the result of fatigue caused by corrosion.

BARRY L. TROTTER,
Regional Director.

NATIONAL TRANSPORTATION SAFETY BOARD, OFFICE OF AVIATION SAFETY, NORTHEAST REGIONAL OFFICE

SAFETY RECOMMENDATION PROPOSAL

A. *Accident:* NYC91–L–A250

Location: Utica, NY; date: September 27, 1991; aircraft: Mitsubishi MU–2B–60, C–FFSS; owner: Air 500 Limited, Ontario, Canada.

B. *Nature and Circumstances Surrounding the Accident*

On Friday, September 27, 1991, at 1330 eastern daylight time, a Mitsubishi MU–2B–60, Canadian registry C–FFSS, sustained substantial damage when a propeller blade separated in flight near Utica, NY. The airplane was climbing through 19,000 feet when the pilot felt a strong vibration, followed very shortly by a loud "bang." The vibration became severe and the pilot experienced significant difficulty controlling the airplane. The pilot was able to land the airplane at the Utica Airport.

A post accident examination of the airplane revealed that one of the four propeller blades on the No. 2 engine ripped a 12-inch hole in the pressurized area of the fuselage. The airplane wings were substantially twisted and wrinkled, and the No. 2 engine nacelle was partially separated from the engine truss mount.

The pilots stated that the vibration was so severe that they were "barely able to control the airplane."

The failure occurred at the propeller hub arm, which resulted in the entire blade and blade clamp assembly separating. The separated blade struck the next blade in rotation, causing about 6 inches of that blade's tip to separate.

Discussion

The Hartzell propeller hub on the airplane was model HC–B4TN–5DL. This is the first known failure of a steel hub arm manufactured by Hartzell Propeller, Inc. It is estimated that as many as 1,000 airplanes use this basic hub. Some of these airplanes are: King Air A–100; Donnier 228; Fairchild 226T; Mitsubishi MU–2–26, 36, 40, 60.

The metallurgical examination of the propeller hub was conducted at the National Transportation Safety Board Metallurgical Laboratory in Washington, DC, on October 22, 1991. This examination revealed that the hub arm failed as a result of fatigue which initiated in the internal bore of the hub arm assembly. This fatigue was from multiple origin sites and most likely caused by corrosion pitting on the surface of the internal bore near the end of the pilot tube.

As a result of the aforementioned accident and the potential for future accidents; and due to the large number of airplanes fitted with these Hartzell propeller hubs, it is imperative that an inspection of these hubs be accomplished.

Recommendation

Therefore, it is proposed that the National Transportation Safety Board recommends to the Federal Aviation Administration that:

1. An EMERGENCY Airworthiness Directive be issued requiring a one-time visual inspection of the hub arms of the following Hartzell propeller hubs: HC–B4TN; HC–B4MN; HC–B4MP.

CHARLES F. LEONARD,
Air Safety Investigator.

Mr. VOGT. Well, when that—and I was not there, so I will tell you what I have learned about it—when that recommendation came in from the field, efforts were made to determine if there could be a visual inspection made of this particular area of the hub assembly.

And it was determined that it was impossible to make a visual inspection that would detect the kind of fatigue crack that was involved in that accident.

So, while Chuck Leonard made that recommendation, it was determined that it was a recommendation that was impossible to comply with; and that is why no recommendation went out. It would have been a recommendation that could not produce any beneficial result.

Now, why it took a year after that, I am not entirely certain. But I do know that as a part of the investigation—as we discussed in the prior testimony when Mr. Broderick and I were here—it appeared to be an aberration, given the enormous safety record of this particular four-bladed prop assembly.

And tragically, it occurred in the Iowa accident of the South Dakota aircraft that this may not have been an aberration. Since then, large numbers of these props have been examined; and there has been one other additional potential fatigue crack found. There are some 5,200 of these assemblies that have been produced, and some large number of those are still in service.

So, the question of time was one of: What could be done? And you note, Senator, that our recommendation when it was made, was that the FAA develop an inspection procedure that could be used to detect a fatigue crack in the propeller hub.

So, I think the combination of the fact that it was perceived to be an aberration and may, in fact, turn out to be such; and two, that there was really no way that the inspection could be carried out; were major factors in the way in which it was handled.

Senator PRESSLER. Yes, and we are both handicapped here in this conversation because we do not have the final accident report. So, we can only assume, at this point, certain things. And so I do not want to be unfair in any way.

But the memo does not say to develop a procedure; the memo says, "The enclosed safety recommendation proposal requests the Federal Aviation Administration to issue the following: 1) An Emergency," capitalized, "airworthiness directive."

Now, what is a typical timeframe for a preliminary recommendation like that to be dealt with?

Mr. VOGT. I think that came after the Iowa accident, did it not, Senator?

Senator PRESSLER. No, this came after the New York accident.

Mr. VOGT. This was Mr. Leonard's recommendation?

Senator PRESSLER. Yes, and it was dated October 25, 1991.

Mr. VOGT. This was from Mr. Leonard to——

Senator PRESSLER. This is from the director of the Northeast region.

Mr. VOGT. Yes, that was the recommendation that he made to our office in Washington; and our office, in reviewing that recommendation, concluded that there was no way to do what Mr. Leonard recommended. Because there was no visual inspection that could be made that would detect the problem that had been identified in that accident.

So, this was an internal recommendation, and it was concluded that it was one that was impossible to comply with. So, no recommendation was made to the FAA based upon that internal recommendation from Mr. Leonard.

Senator PRESSLER. Now, is Charles F. Leonard an experienced investigator?

Mr. VOGT. He is a very experienced field investigator, and very highly regarded. But our procedure is, that field investigators who make investigations then submit their recommendations to our staff in Washington, which has extremely high levels of expertise in analyzing the viability of recommendations and of the conditions which lead to accidents.

And so Mr. Leonard, as he should do, and as field investigators typically do, makes a recommendation. But if, upon review of his recommendation, it turns out that it is not well-founded, then it would not be appropriate for the agency to go forward and make a recommendation, based upon something that it knows is not possible to be done.

Senator PRESSLER. But after the April crash of the Governor, the AD was issued; was it not?

Mr. VOGT. There was not—well, I do not know about an AD.

Senator PRESSLER. Well, was that not the very recommendation that Charles Leonard called for on October 25, 1991?

Mr. VOGT. Well, I do not have those two in front of me, but I think he was calling for a visual inspection. And our recommendation—unless my memory fails me—was not for the visual inspection that Mr. Leonard recommended.

Senator PRESSLER. Yes, well, some people feel that there was—it is a harsh term—a tombstone effect here.

It seems to me that you have an experienced investigator recommending something on October 25, 1991; it is not acted on until 1992 and then only as a class 2 directive. Then—after a similar crash, this time one involving a Governor—an airworthiness directive is promptly issued.

It would seem, that the reasons that you did not issue it before were changed, and then after the crash you decided to issue the very thing Charles F. Leonard asked for. That is what I am trying to get at.

And you were not in the agency at that time, so this is not a personal thing. I am just trying to see how this process works.

Mr. VOGT. I am afraid I have to disagree with some of what you are saying, and I do not have those documents in front of me. But what was issued by the Safety Board was, I believe, not at all the same thing that Mr. Leonard recommended.

Senator PRESSLER. This is the memo I am talking about here. I just want you to be able to see it.

Mr. VOGT. Also, we do not issue, as you know, airworthiness directives, we only make recommendations to the FAA about issuing airworthiness directives.

Senator PRESSLER. I know that, yes. But if you can just take a moment to read it, it is a short memo. This is the memo that concerns people. There is a feeling that there was a year's delay to act on it, then it was acted on as a class 2 directive, and then essentially after the crash, the agency reversed itself and issued what Mr. Leonard, your field investigator, had recommended.

Mr. VOGT. Let me try to put it this way, Senator. Had we done what Mr. Leonard recommended at that time, it would have been a worthless act. It could not be done; what he is recommending here would be ineffective in preventing an accident.

Now, what we recommended to the FAA was that a methodology be developed to conduct these inspections; and the FAA then issued an airworthiness directive dealing with this situation, and with the then-conclusion that this may not have been aberrational.

Senator PRESSLER. Well, let me just make a point on your "worthlessness" comment.

According to South Dakota's Chief Deputy Attorney General, the State was never informed of the NTSB's concerns, so that, as is possible on these public service aircraft, the State could inspect. And, if they were alerted to something, they could carry it a step or two further. If there was some alert that had gone out at that time, the State Attorney General's office feels strongly that the State would have carried out inspections, or taken other appropriate steps.

The point is, such a directive has a spinoff effect, because it can alert people down the line that there is potentially a problem. For example, if I get a notice from my car dealer that there is potential problem with a part of my car, I can take an extra step or two in the interest of safety.

And that is the view of South Dakota's Chief Deputy Attorney General who feels strongly that there would have been a possibility that some action would have been taken had proper warning been given.

Mr. VOGT. Senator, I would be very surprised if the South Dakota State officials who were maintaining that airplane—and I understand it was a very well-maintained aircraft, in which they had a great deal of pride were not intimately aware of the Utica accident, and of the circumstances surrounding it. Because any responsible operator, which they were, of a particular type of aircraft is going to know, through publications in the trade and through inquiry, of any kind of accident involving an aircraft of that type.

Senator PRESSLER. Now, why did not the NTSB's recommendations to the FAA contain operational information about the difficulty the Utica pilot's had in controlling their plane? That particular aircraft, if it gets on one engine, is very hard to get down.

And it is my understanding that such information should have been included. If it had, and if the pilots would have been informed of the NTSB's finding, perhaps, only perhaps, the April 19 crash would not have been fatal.

Mr. VOGT. Again, I do not know exactly what was done, vis-a-vis the FAA, but they are a party to all of our investigations. And they

are extremely knowledgeable about all these aircraft, which they have certificated.

And I think I can say, with a high degree of insurance, although I do not know the particular facts in this case, that there was nothing that we knew about that accident that the FAA did not know. And that is very typical.

Senator FORD. Mr. Chairman and Larry, I do not mean to interrupt, and I am not trying to interfere with your questioning. But we are getting very close to practicing a case here. And I am very afraid that Mr. Vogt would be put in a position of answering questions that, at some point, may be revealed in court. I want to be very careful about that.

So that, since the investigation has not been completed, and we are beginning to ask about all of these responsibilities and who should have done what, and that sort of thing, I am a little bit concerned that we would get this into a posture of questions being answered here. So, if you want to continue with your questions, I would advise the chairman that he be very careful with his answers.

Not that I am trying to protect anybody here, but I think we might be going fairly far afield. And, if you are comfortable with answering them, it is all right with me. I can see some things where the Federal Government and its agency making statements here today, about reasons and why it did not do this and why it did not do that; that we ought to wait until the investigation is over, and then let you present your case. And then you can be questioned about it.

I apologize for taking that position, but I just think it is important, and I am sensitive about that.

Senator PRESSLER. Could we have a hearing after the final report is issued? Because my next question was going to be: Is it common for the NTSB staff to conduct an investigation and then recommend that the NTSB request the FAA issue an airworthiness directive; yet the Board decides against that action?

I have several more questions along those lines; and if they are impossible to answer now, I think that we should wait. What is the date that the report is due out?

Mr. VOGT. November 16.

Senator PRESSLER. Yes. I am not trying to make legal points here, or anything like that. It is just that, as a U.S. Senator on this committee I have a responsibility.

Senator FORD. I understand that, and I apologize for getting into, trying to get into the questioning.

Mr. VOGT. I understand your concerns, Mr. Chairman. I appreciate your thoughts. Let me suggest that perhaps the best way to proceed would be to proceed with our November 16 Board meeting and the issuance of our report, and at that point in time, perhaps some if not all of the questions you have, Senator, will be answered.

At that point in time, as you well know, that pretty well concludes our portion of this thing. If there is going to be litigation, that will go on independent. And our reports are not admissible in evidence, except the factual portion of our reports can be used to a certain extent.

Senator FORD. But the record of this committee is open.

Mr. VOGT. Yes, sir.

Senator PRESSLER. But let me say this: I am not working with any of the litigants or their representatives. I am just working as a Senator, trying to perform an oversight role, trying to understand how these agencies function.

And I am genuinely concerned about the relationship between the NTSB and the FAA.

Mr. VOGT. Yes, no question about that.

Senator FORD. I understand that, but they were beginning to go down a path that I am very concerned about; and I would prefer that we hold a hearing in that kind of detail after the matter is complete after the investigation has been concluded, and a report given. And then we can really get into it, and you can nail whatever you want to on that.

Senator PRESSLER. Well, I am not trying to "nail" anybody or anything here.

Senator FORD. Well, that was just terminology.

Senator PRESSLER. Yes. But let me ask this. Now, what sort of access will we have after the report, to the various NTSB internal memorandums? What sorts of cooperation would you, Chairman Vogt, give?

I guess I would like to request at this time, that we look at everything after the report, to try to figure out what happened; so that we can see how the process works. And then, could we have a specific hearing? Maybe we could limit it to an hour or two, or whatever it takes, on this crash; just to walk through all the steps, after the report is out.

Mr. Chairman, would you agree to that?

Mr. VOGT. Senator, I frankly do not know what the legalities of doing that are. And I would be happy to look into that, and have our legal counsel advise me on it; but I would be reluctant to make a commitment to you that I subsequently could not produce.

Senator FORD. Well, let me just say to my friend that, if everything works out, and we can, I promise you that we will have a hearing.

Mr. VOGT. There is certainly no lack of willingness on my part, or the NTSB's part.

Senator FORD. Well I understand that, and I apologize for injecting myself. But I got a little bit sensitive about some of the questions and answers, as it related to the final conclusion.

Mr. VOGT. Sure. Well, there is nothing that we have done on this that we certainly have any reason to want to not share with the committee. But I would, if, depending on your request and what it is, I would like to have the opportunity to respond to that. But I want to make it clear, there is no lack of——

Senator FORD. And if there is no problem, we will hold a hearing, Larry, I will be glad to do that.

Senator PRESSLER. That would be good because, right now, pursuing these questions, we are doing it in an atmosphere in which we do not have the official cause of the accident.

Senator FORD. And I think we would be in a better position to ask the questions that would be pertinent.

Mr. VOGT. Certainly, sir.

Senator FORD. And as you say, we may have a lot of our questions answered, when the report comes out.

Mr. VOGT. They may well be done.

Senator PRESSLER. Let me just ask a general question about the relationship between the NTSB and the FAA.

I will wait until we can go through these questions once we get the documents and report because I think it will be very valuable. We lost a Governor of one of our States, so I think it is a good opportunity to review the relationship of those Government agencies charged with maintaining aviation safety.

Now, you and the head of the FAA are friends and have a good working relationship. Some say there is too cozy a relationship between the NTSB and the FAA. Is that a possibility?

Mr. VOGT. Well, Senator, I do not think so. I have met with Administrator Henson several times, and we had lunch once. I had never met him before he came to town. So, I think it would not be fair to say we are good friends, although I think highly of him.

I think our relationship is very productive; and as you will recall from the hearing where Mr. Broderick and I were here, we explored that with you in some detail. I think it is working very well. I think it has to be an arm's length relationship, and it has to be characterized by tension.

And I believe that it is, at this time. We are working hard at that. Our staffs meet on a regular basis, we share information, and we try to keep the pressure on them. I think it is working well.

We are not in the popularity business here, and there are always going to be some people who will characterize us one way or the other, but I think the relationship is very productive at this time.

Senator PRESSLER. Let me ask you this: I understand that the Government uses a cost-benefit analysis, in determining whether or not to implement an NTSB recommendation. Is that true? Do you use a cost-benefit analysis in making safety recommendations?

Mr. VOGT. No sir, we do not.

Senator PRESSLER. Does the FAA?

Mr. VOGT. Yes, they do.

Senator PRESSLER. They do. What do you think of that?

Mr. VOGT. Well, I think that is a legitimate way for the FAA to proceed, depending on how they do it. We do not always agree with what they conclude. But certainly, as a way to go about an analysis, we do not have any quarrel with that being in their purview; or of any of the other modal administrations we deal with.

Senator PRESSLER. Now, let me discuss briefly the NTSB's personnel needs, projected over the next 3 years. According to your testimony, authorized staff would be reduced in 1994 by a total of 33 below the current level, from 381 employees to 348 employees. I understand this reduction is to abide by the President's Federal Workforce Initiative.

However, for 1995, staffing is projected at 3 more than the current authorized staffing level. Please explain why you propose to reduce staff in 1994 but, in turn, raise authorized staffing levels the next year by an amount even greater than the amount prior to any reduction effort.

Mr. VOGT. Well, the authorization that we are suggesting for fiscal year 1994 is consistent with what we obtained from OMB, in

terms of our appropriation. And that reflects the administration's across-the-board 4-percent decrease in FTE's.

Our authorization level for a number of years ago was 381 FTE's. We are requesting 384 because of the additional authority we have for reviewing FAA civil penalty decisions. It was determined in our previous reauthorization that was an optimum staff level, Senator, to do all the things that we have to do.

We still believe that. I believe that, after my experience here.

We see an increasing demand on our staff and, frankly, at the current funded level, around 350, you are beginning to cut into the bone. And we think we have been lean for some time.

My experience, coming into this agency from the private sector a little over a year ago, is that this agency is very lean at this point. And if it gets any leaner, I am going to be worried about it.

Senator PRESSLER. Let me ask one final line of questions. Then I have several written questions that I would like to submit.

I have proposed that an independent commission be formed, on a short-term basis, to study how the two agencies interact; and to what extent their relationship is functioning, in the best interests of the American public.

Now, you have served as the NTSB Chairman over the past year. You obviously have gained much insight into the workings of the NTSB. I am very interested in knowing how you view oversight into your agency by both Congress and other groups.

It is rather hard, unless you are an absolute expert in transportation safety, to analyze a lot of these things. And it is my view that a one-time, short-term commission of experts who really know how to evaluate the technical issues considered by the NTSB and FAA. That is the intent of my legislation.

Do you view the Board's functions to include acting like a jury, a judge, an independent voice of the public, a collegial group leading to collective reasoning on a given issue, or five individuals who act independently, according to each person's conscience?

Mr. VOGT. Well, that is a pretty broad question, Senator. And I am not sure I agree or disagree with some or all of it.

I can tell you that the Board members act independently. There is a high degree of collegiality. We cannot get together, due to the Government in Sunshine Law, so we do not meet informally and discuss these decisions. Our Board meetings are where the five of us sit together and review these things.

I think the Board is working very well. I must say, I have been impressed. My experience, of course, is a legal one; but watching courts operate and watching forums operate over the years, I have been impressed by the way this Board does operate. So, I would say, it is a combination of individuals who act in a collegial way, but exercise independent judgment on the matters that come before us.

And of course, we have more than safety reports. We also review decisions of administrative law judges, involving disciplinary actions taken by the FAA against pilots and repair mechanics and flight crews. So, we have those two distinct functions.

But I must say, my personal opinion is that it is working well.

Senator PRESSLER. You have a very friendly relationship with the House committees that have oversight over you; you have very

friendly relations with the Senate committees that have oversight over you; and you have a good relationship with the FAA. So, everybody seems very friendly, and maybe everything is fine.

But, in my view, there does not seem to be any rigorous oversight. I know that we Senators, get examined very closely by the press, and of course you do too, sometimes. But it takes a certain type of a person with technical expertise to be able to evaluate what you do. And I would say that I am not able, unless I prepared a great deal, to evaluate the total scope of NTSB activities. It is very difficult to accomplish rigorous oversight, therefore, I have proposed an independent commission to review this important area.

I know that you have written a letter to OMB, disagreeing with that concept of a commission. I am aware the OMB requested your position on my proposal and, according to your written response, you are concerned that "establishing a national commission would duplicate, and perhaps complicate, a well-established relationship between our two agencies."

If you recall, my commission would only exist for a very brief time, taking only long enough to study the relationship between the two agencies to determine if there were problems, and recommend any necessary improvements. Nothing permanent, nothing duplicative, and certainly nothing complicated about that.

Additionally, you say that, if the commission were established by the NTSB, it would be forced to dedicate scarce Safety Board staff resources to cooperate with the commission.

Given the specifics of my proposal, I have trouble understanding your concerns. Certainly the commission's purpose, to make the system work more efficiently, would be worth putting forth staff efforts as needed.

Can you explain your position?

Mr. VOGT. Yes, sir. You asked me earlier how I thought this was working, both vis-a-vis the FAA and internally as a Board.

And I must tell you in all candor, Senator, that my experience over the last 14 months or so is, that on both accounts it is working well, in terms of its effectiveness, to get the job done that the statute requires us to do.

So, in my view, I think it is functioning well. Whether there should be an oversight, in addition to the oversight that the committees in both the House and Senate exercise continuously, I think is a decision for, frankly, you and for your committee to make.

I do not see the need for it. But I hasten to add, there is nothing going on there that I would hesitate to have viewed by anybody. So, I do not see the need for it. On the other hand, if that is what you and the Congress determine would be necessary or helpful at this time, I can assure you that there will be complete cooperation. And there is nothing that I would hesitate, in a second, to put before you.

But I am trying to say what my opinion is of what needs to be done, and to also say that we have absolutely nothing that could not be presented.

Senator PRESSLER. I understand the FAA is, or will soon be, undertaking an effort to review its procedures and its relationship to

the NTSB. I do not know if this is in relation to the Al Gore initiative. Is this a major study?

Mr. VOGT. I am not aware of it, Senator.

Senator PRESSLER. Well, especially for those that are not in the glare of public analysis everyday, sometimes an independent look at an agency by people who are competent to evaluate is needed. That is the idea that I put forth in legislation.

Mr. Chairman, I have several more questions about other areas, including rail and pipeline safety. We have had a major pipeline break in Sioux Falls recently.

The final question I would like to ask on the record is: Policies on alcohol and drug testing. What is your view on that, for operating trains and other vehicles?

Mr. VOGT. Well, we have long been proponents of drug testing, in all modes of transportation.

I think the issue has come up, about the frequency of drug testing and regulations; and the Board has not altered its position on the frequency of these tests. But we believe that the tests are extremely important.

We made new recommendations in boating, for example, that drug tests be conducted on all fatal boating accidents, to not only the operators but the occupants of the boat.

And so our position has been consistently in favor of testing.

Senator PRESSLER. Thank you. Mr. Chairman, I shall reserve my additional questions on the Mickelson crash until after the report is out, for a future hearing. And I thank you very much for your consideration.

Senator FORD. I appreciate that. Mr. Chairman, there will be some questions from Senator Pressler in writing, and I know you will respond to those in a timely manner.

Mr. VOGT. Yes, sir. Thank you.

Senator FORD. If there is nothing further to come before the committee, we are adjourned.

[Whereupon, at 10:40 a.m., the hearing was adjourned.]

APPENDIX

Questions Asked by Senator Pressler and Answers Thereto by Mr. Vogt

TECHNOLOGY AND SAFETY

Question. I am sure you are aware, the FAA is studying the use of a new navigational aid called Global Positioning System (GPS). Using the Defense Department's satellites, the FAA is hopeful that they will be able to use inexpensive and highly accurate devices to assist in the instrument flying and landing of airplanes. David Hinson has described GPS as one of the most significant technological advances in aviation history. Given that GPS could have a tremendous impact on the safety of our nation's skies and airports, has the Safety Board studied the application of GPS?

Answer. Although the Safety Board has not undertaken any special studies to evaluate the impact of GPS on our national airspace system, our staff has actively followed the technical aspects and the implementation of the system. In fact, a few weeks ago, I personally had the opportunity to fly on a flight demonstration of a GPS instrument approach and was impressed with the potential that the system offers. We believe that the accurate navigation provided by a system that is relatively inexpensive to the user will provide significant benefits to both safety and efficiency in both domestic and oceanic airspace. We will continue to monitor the GPS program.

Question. As I'm sure you are aware, the National Commission to Ensure a Strong Competitive Airline Industry recommended that the air traffic control part of the FAA be privatized, with the FAA maintaining only oversight and regulatory control. What is the NTSB's position on this proposal?

Answer. The Safety Board has not taken a position on the privatization of the ATC system. We will, however, actively monitor any future transition of the ATC system to assure that safety oversight is given proper attention.

APRIL 19TH PLANE CRASH

Question. During the May hearing, you testified that all NTSB recommendations are sent out to a wide spectrum of the aviation community—to a listing of 1300. In addition, this information is published in the trade press. I am concerned this effort does not go far enough. According to South Dakota's Chief Deputy Attorney General, the state was never informed of the NTSB recommendation. For the record, please provide a copy of the NTSB's listing, including trade publications. Also, is there any guarantee that these trade publications will publish the NTSB's recommendations? In my view, more needs to be done to ensure that those responsible for aircraft maintenance and safety are informed of NTSB recommendations. Do you have any recommendations?

Answer. Four mailing lists are used to disseminate safety recommendations. The National Technical Information Service (NTIS), Springfield, Virginia, maintains a list for persons and organizations who subscribe to Board accident reports, special studies and investigations, and safety recommendations. The Board maintains three mailing lists for safety recommendations: the news media including print, radio, and television; courtesy copies to industry, states, academia, employee associations, foreign governments, etc.; and, a third list for Members of Congress and Congressional committees. Except for the NTIS list, these lists are attached. According to their staff, NTIS cannot separate the aviation lists of addresses from those that receive surface transportation accident reports, recommendations, and studies.

While these lists include many state aviation offices that receive all Safety Board aviation recommendations and major reports, we are taking steps to ensure that all state offices receive this information.

All Safety Board recommendations receive wide distribution. However, it would be very difficult for the Board to implement procedures to automatically notify the owners and operators of passenger aircraft of the issuance of specific recommenda-

tions. For example, the Board does not, nor could it with existing resources, maintain current listings of aircraft registration, ownership and type of aircraft. These listings are maintained by the FAA and the aircraft and aircraft component manufacturers, and the FAA would be the appropriate distribution source to owners and operators.

The Safety Board distributes safety recommendations to as wide an audience as possible through mailing lists and regular contacts with the press and trade publications. For instance, the Aircraft Owners and Pilots Association often publishes the Board's safety recommendations or related articles in the "AOPA Pilot." This publication is distributed to approximately 62 percent of all general aviation aircraft owners and operators. Another publication, "Aviation Equipment Maintenance Magazine," prints nearly all Safety Board recommendations. In fact, it printed the Board's August 1992 recommendation in its November 1992 issue. This magazine is distributed without cost to 40,000 aviation repair facilities and maintenance professionals.

Furthermore, airframe and equipment manufacturers publish manufacturer's service letters or maintenance bulletins, which are distributed by the manufacturers to owners and operators of the affected equipment when a potential problem with their equipment is identified. In many cases such letters or bulletins have addressed the issues contained within the Board's safety recommendations.

The FAA distributes, at no cost to the recipients, a "Monthly General Aviation Airworthiness Alert" (Advisory Circular 43-16) that contains information about airworthiness issues. Although these circulars do not go to individual owners and operators unless requested, they are sent to repair stations and fixed based operators where they are available to the public. While safety recommendations are not automatically included, the FAA has been responsive when requested by the Safety Board to include our recommendations. The Board has discussed with the FAA a process to routinely include safety recommendations in the monthly alert.

While the Board believes that aviation safety information is widely distributed, neither the Board nor any other Federal agency can guarantee that the print media including trade magazines and newsletters sent to the association members will print all the information that they presently receive.

In summary, we believe that the Safety Board's recommendations are reaching about 70 percent of the owners and operators, irrespective of the FAA's compliance intentions. Nonetheless, the Safety Board staff will be more active in using the distribution resources mentioned above and explore other information media when issuing recommendations.

Question. Why didn't the NTSB's August 1992 recommendation to the FAA contain operational information about difficulties the Utica pilots had in controlling their plane? It is my understanding that such information should have been included. If it had, and if the pilots would have been informed of the NTSB's findings, perhaps the April 19th crash would not have been fatal. (Note, this question is somewhat repetitive, but please respond for the record.)

Answer. It is true that the pilot's statement obtained during the investigation of the September 27, 1991, accident at Utica, New York, described his significant difficulty in controlling the MU 2B-60 airplane following the separation of the Hartzell HC 4B propeller hub arm and blade. The imbalance of the propeller assembly upon the loss of a blade can result in significant damage to the engine mounting structure and possibly to the major structure of the wing. The extent of such damage and the effect on the pilot's ability to control the airplane and the airplane's performance capabilities is highly variable and to try to describe to pilots the best procedures to be used in such an event would be nearly impossible. However, pilots are sufficiently well trained so that they can assess the effect of emergencies on an airplane's performance and they generally react with the appropriate actions and precautions that must be taken to minimize the consequences of the emergency.

The pilot of the South Dakota airplane did in fact experience control and performance difficulties. In addition, it is unfortunate that he had to contend with weather and low cloud ceilings. Our accident report will discuss the pilot's performance and I am not able to say at this time whether he would have benefited by knowledge of the Utica pilot's control difficulties.

RAILROAD QUESTIONS

Question. During the last session of Congress, the Surface Transportation Subcommittee held a hearing to discuss the need to improve awareness and visibility of trains at rail-highway crossings. We must ensure safety standards at rail-highway grade crossings are effective. I can remember a tragic incident that occurred in my home state of South Dakota a few years ago. A woman and her husband were

traveling on a South Dakota highway. The weather was rainy and foggy, so road visibility was reduced. Within moments, their car was hit broadside by a train. The only warning they had was a black and white crossbar sign, dimly illuminated by the car's headlights. What are the NTSB's recommendations for improving rail safety mechanisms, such as improved lighting systems or other safety designs for railroad traffic?

Answer. The Safety Board has issued a number of recommendations addressing railroad/highway grade crossing safety to Federal agencies, States, and national safety organizations. These recommendations called for increased use of reflectorized materials on railroad equipment; improved sight distance requirements; improved audibility warning systems; a requirement for a public toll-free system to report problems at grade crossings; installation of specific advance warning signs to warn of limited sight distance; expansion of voluntary safety organizations such as Operation Lifesaver to educate motorists; and the need for specific grade crossing safety programs that address the dangers of trucks carrying bulk hazardous materials, especially petroleum products, over crossings.

The Board is planning a new study of grade crossing safety that will likely include signage, sight distance and crossing geometry, lighting and reflectorization, crossing closure, private crossings, and educational issues.

Question. I understand that aviation is the safest means of transportation per passenger mile. How safe is rail transportation?

Answer. The table below shows the number of passengers on trains who died in each of the last five years, as reported by the Federal Railroad Administration (FRA). The table also shows the number of passenger miles traveled for the first three of those years, as reported by the Research and Special Projects Administration (RSPA). Mileage data for 1991 and 1992 are not yet available, and the Safety Board calculated the passenger fatality rates that appear in the last column. During the five year period from 1988 through 1992, there was an average of 4.8 passenger fatalities on trains.

Year	Passenger fatalities	Passenger miles (in billions)	Passenger deaths per billion passenger miles
1988	2	5.686	0.35
1989	8	5.840	1.37
1990	3	6.041	0.50
1991	8	NA	NA
1992	3	NA	NA

These figures only include railroads that are subject to FRA regulations. Commuter and light railroads are not included. Because differences exist in accident and fatality reporting requirements, care must be taken when attempting to make safety comparisons among the modes.

Of course, 1993 will show a significant increase in the fatality rate due to the Mobile, Alabama,Amtrak accident, the worst railroad accident in Amtrak and Safety Board history.

Question. Do you believe the federal government needs to make an investment to improve our nation's rail infrastructure, particularly in rural areas? In your view, do you think such an investment would improve rail safety?

Answer. In general, investments in infrastructure provide some safety benefit. In rural areas, infrastructure improvements may improve railroad safety if they are focused on track maintenance and grade crossings. Initial investments should focus on regional and short lines. Because it will focus on passive crossings (those without flashing lights or traffic gates), the Safety Board's new safety study will highlight safety issues that are applicable to the kinds of crossings that are prevalent in rural areas.

PIPELINE SAFETY

Question. While hazardous liquid pipelines are essential to the transportation of energy resources, they also have caused significant problems—both to humans and to the environment. In my home state of South Dakota, pipeline problems have forced homes to be evacuated. In fact, pipeline problems have even caused an entire elementary school to be relocated. Most recently, a leak went undetected for a number of months, very close to the water supply for our state's largest city, Sioux Falls. How has the NTSB worked to improve the safety of the hazardous liquid pipeline network of approximately 1.8 million miles?

Answer. Safety Board investigations of liquid pipeline accidents have resulted in pipeline operators improving their pipeline monitoring systems to better detect re-

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leases of products. This also has resulted in the RSPA's initiation of a program to assess the adequacy of its pipeline monitoring requirements.

The Safety Board has investigated major liquid pipeline accidents over the years, including Moundsview, Minnesota (July 8, 1986), San Bernadino, California (May 25, 1989), and North Blenheim, New York (March 13, 1990), and other smaller accidents. As a result of these investigations, safety recommendations have been issued concerning the use of remote and automatic valves to promptly isolate failed portions of pipelines in order to mitigate losses.

The RSPA is now considering a proposed rulemaking to require the installation of remotely-operated shutoff valves on pipelines at either side of water crossings and at locations close to the public. Other pipeline safety issue areas include the use of internal instrumented inspection devices, the development of emergency response plans, and improvements in pipeline employee training. We also plan to initiate a special investigation into a leading cause of reportable pipeline accidents, excavation-related breaks.

Question. What is the NTSB's position regarding state pipeline inspection programs?

Answer. The Safety Board would encourage states to have pipeline inspection programs. For those states without programs approved by the Office of Pipeline Safety (about 13 states), the Office of Pipeline Safety provides the inspection services.

Question. While many states have natural gas pipeline inspection programs, only a few have hazardous liquid pipeline inspection programs. In your view, should all states have a hazardous liquid pipeline inspection program?

Answer. The Safety Board would encourage all states having liquid pipelines within their boundaries to establish liquid pipeline inspection programs as well.

Question. Technology has changed our lives in many areas, including the pipeline industry. These new technological advancements include leak detection systems. In your view, is this technology being used by pipeline companies to prevent problems impacting the environment, water supplies, and humans? If not, what can be done to expand the usage? Is further research needed to improve such technology?

Answer. In the report on the 1990 North Blenheim, New York accident, the Safety Board recommended that RSPA define the operating parameters that must be monitored by pipeline operators to detect abnormal operations and establish performance standards that must be met by pipeline monitoring systems installed to detect and locate leaks. The Safety Board is aware that some companies are using leak detection systems on their liquid pipelines. However, some companies, like Colonial Pipeline, have the latest in supervisory control and data acquisition systems, but have not included leak detection as part of their system. The Department of Transportation has a study underway in this area. The Safety Board plans to look at this issue as part of a special investigation.

At the conclusion of this special investigation, the Safety Board will be able to address your questions further. The study will also assess the capabilities of internal inspection devices to highlight defects prior to rupture.

SMOKE IN THE COCKPIT

Question. I understand that next week this Subcommittee will be holding hearings on the issue of continuous smoke in the cockpit. I feel obliged, therefore, to take this time to ask you, Chairman Vogt, the NTSB's position on this safety issue. I ask you to specifically address your remarks to the Emergency Vision Assurance System (EVAS) developed by Mr. Bert Werjefelt. What does the NTSB think about continuous smoke in the cockpit? Has it been a problem and do you think EVAS is the answer?

Answer. The Safety Board's staff has been corresponding with Mr. Bert Werjefelt for more than 3 years regarding the subject of smoke in the cockpit and the need f6r associated regulatory changes.

Certainly the Safety Board views with serious concern any event that results in smoke on board an aircraft in flight. Fortunately, our experience has indicated that such occurrences are infrequent, and in those that we have had to investigate, the major issue has been the ability of the flight to reach a suitable landing site and the survival of passengers. As you know, the Safety Board has been a very active proponent in the improvement in cabin fire safety, and we are generally pleased that many recent improvements in more fire resistant cabin materials, fire detection, fire extinguishing, and crewmember breathing equipment have been implemented.

While the Safety Board concedes that smoke in the cockpit, as it affects pilots' vision and their ability to control the aircraft, could be a serious problem, we have

investigated only one accident involving air carrier aircraft in which smoke in the cockpit may have been a factor precluding a successful or survivable landing. This accident involved a Pan American Boeing 707 cargo flight that crashed while the crew was attempting to land at Boston Logan airport on November 3, 1973.

The cause of the smoke was chemical reaction between hazardous materials being carried in the forward cargo compartment. While crew vision was impaired, there were several other factors involved—the crew, although aware of the smoke, had bypassed other suitable airports in their attempt to return to Boston, the crew's smoke goggles did not fit properly and offered little protection, and the removal of electrical power from the airplane's yaw damper system made the airplane difficult to control on final approach.

In correspondence with Mr. Werjefelt, the Safety Board has pointed out that it has no research and development capability or responsibility and therefore cannot evaluate the effectiveness of, or the disadvantages of, his device.

Because it has not been an issue apparent in our accident investigations, the Safety Board has not taken a formal position on any recent rulemaking proposals to change the present certification requirements for cockpit smoke removal using continuous smoke generation. However, it would appear to be in the interest of improving safety, and I believe that the Board would support such a change.

Question. I have received a copy of a letter (attached) from a Mr. Otto Rentsch, the former safety director for Swissair. He writes to Mr. Werjefelt to confirm that the recent Swissair flight that made an emergency landing in Munich was affected by smoke in the cockpit. So serious was the smoke that the pilots were unable to read their charts and instruments. Mr. Rentsch says the smoke was so thick that the pilots, in effort to gauge how fast they were going, could only make an educated guess based on the approximate position of the needle on the airspeed indicat9r gauge. Fortunately, nobody was injured but the possibility of a catastrophic accident existed. What do you think of this example? Is the NTSB investigating this incident since the plane was an American made, MD-81 (McDonnell Douglas)?

Answer. The Safety Board has assigned a U.S. accredited representative to work with the German authorities who are in charge of the investigation of the Swissair MD-80 that experienced smoke in its cockpit shortly after takeoff from Munich International Airport on October 16, 1993. From preliminary information obtained thus far, it appears that light smoke emanated from an electrical panel located above and between the two pilots. The crew decided to return to Munich and air traffic control issued clearance to return to the airport. The pilots donned oxygen masks and smoke goggles. Thereafter, dense smoke billowed from the overhead control panel and the pilots began the checklist for electrical smoke in the cockpit. When the right generator was turned off, power was lost to the captain's instruments and the smoke intensified. The captain declared an emergency to air traffic control. Vision to the instrument panel was limited during the approach and was lost after the airplane safety landed.

According to the captain, the rapid onset of dense smoke prevented the completion of the decompression of the airplane which is part of the smoke evacuation procedure. Also, neither the captain nor the first officer opened ventilation outlets located above their heads. Finally, because the airplane was not depressurized, the cockpit clear view windows could not be opened until the airplane landed.

Irrespective of the smoke in the cockpit, it appears that the pilots did not perform the smoke evacuation procedures which would have improved their visibility.

Question. As further evidence of a problem, I refer you to a letter sent to Mr. Werjefelt by your predecessor, James Kolstad. In that letter he responds to a number of examples provided by Mr. Werjefelt of accidents or near-accidents in which smoke in the cockpit played a primary role. On page two of that letter Mr. Kolstad writes that in one accident the EVAS "would have restricted pilots from moving away from the intense fire and would not have enhanced their vision, because in order to breathe, the pilots had to have their heads out the windows. Is it the Safety Board's contention that a circumstance in which pilots have to have their heads out the window to avoid the smoke from a cockpit fire does not suggest a problem of very serious dimensions?

Answer. The fire was caused when alcohol that was used as a windshield deicer ignited beneath the cockpit floor on board a Pilgrim Airlines DHC-6 with 12 persons on board. The airplane was crash landed on a frozen reservoir near Providence, Rhode Island, on February 2, 1982. One passenger died of asphyxia secondary to inhalation of smoke, toxic fumes, and heated air, and others were injured during the landing. All survivors were treated for smoke inhalation.

The container that held the alcohol was located beneath the captain's cockpit seat. The fire broke through the cockpit floor and was continually fed by the alcohol. Soon a raging fire ensued and critically burned both pilots before the airplane could be

landed. The airplane was not required to have oxygen masks and smoke goggles for the pilots to wear when smoke was present and thus it was necessary for them to put their heads out their windows so they could breath outside air and to clear their eyes. The pi-lots also tried to move away from the flames even as their clothing and flesh were burning.

The EVAS device would not have changed the outcome of this accident since in order for it to be used, the pilots would have had to wear respiratory and eye protection. Further, the use of respiratory protection in the form of an oxygen mask would have exacerbated the fire by providing an oxygen source from failed oxygen supply lines.

[A listing of aviation addressees may be found in the committee files.]

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